

FREQUENCY-TUNED COMPRESSOR STATOR BLADE AND RELATED
METHOD

ABSTRACT OF THE DISCLOSURE

[0018] A method of tuning a compressor stator blade having a base portion and an airfoil portion to achieve a desired natural frequency, includes a) identifying the natural frequency of the compressor stator blade; b) determining a different target natural frequency for the compressor stator blade; and c) removing material from the base portion of the compressor stator blade in an amount and in a configuration that achieves the target natural frequency. A frequency-tuned compressor stator blade includes an airfoil portion and a base portion, the base portion having a substantially solid rectangular shape; and a groove cut across a width dimension of the base portion, the groove having dimensions selected to obtain a predetermined natural frequency for the airfoil portion.